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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/733,215

12/08/2000

Badri N. Prasad

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05/23/2005

DORSEY & WHITNEY LLP
INTELLECTUAL PROPERTY DEPARTMENT
50 SOUTH SIXTH STREET
MINNEAPOLIS, MN 55402-1498

EXAMINER

BUI, KIM T

ART UNIT

PAPER NUMBER

3626

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/733,215

Applicant(s)

PRASAD ET AL.

Examiner

Kim T. Bui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the amendment filed 02/25/2005. Claims 1-31 are pending. Claims 1, 2, 8, 9, 16, 17, 19, 21-23, 27-29 have been amended. New claim 31 has been added.

Claim Rejections - 35 USC § 101

2. The rejection of claims 1-30 under 35 U.S.C. 101, is hereby withdrawn due to the amendment filed 02/25/2005.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11,13,16-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over LASH (2001/0020229 A1).

(A) Claim 1 has been amended to now recite "electronically stored claims", "calculating a relative risk for the member, including comparing quantified risk for each of a plurality of members of the healthcare plan", "electronically stored claims of the member", "for the member, wherein the plurality of members of the healthcare plan includes members with distinct intervention flags", "of the member, and", "generating a display showing to the user the intervention flag and the medical episode in association

with an identification of the member, the display being generated responsive to an electronic selection of the identification of the member by the user”.

LASH teaches the database 10 for electronically stored claims of the members in Fig. 1, page 2, paragraph 0023, the calculation of a relative score (reads on relative risk) including a comparison with a threshold (reads on a quantified risk) for each of a plurality members of the healthcare plan on page 4, paragraphs 0039, lines 7-9 of paragraph 0041, and on page 6, Table 2, paragraph 0059.

LASH teaches the searching of electronically stored claims of the members to identify the presence of a claim variable (reads on intervention flag). LASH, page 1, paragraph 0010, page 2, paragraph 0024, line 4 to page 3, paragraph 0025, line 3. wherein patients 1 through n (reads on the plurality of members) includes members with distinguished variables B, C, D (reads on distinct intervention flags). LASH, Fig.1, page 3, lines 1-4 of paragraph 0025, and the generation of a display showing the variable(s) (intervention flags) and medical episode in association with an identification of the patient.

LASH teaches in Fig. 1 the display of the variables (intervention flags) A-Z, the variables are associated with medical episode (i.e. 4 emergency visits) and identifications of patients (1-n). See Fig. 1, paragraph 0010, lines 8-19. LASH also teaches on page 6, Table 2 a display showing variable (i.e., intervention flag), medical episode (i.e., 2 office visits for respiratory related problems), identification (i.e., 55 years old). It is readily apparent that the data of Table 2 is displayed in response to an electronic selection of the particular 55 years old patient. LASH's apparatus is

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computerized, as such the "electronically" is readily apparent. See also LASH, Fig 3, element 62, Fig. 3A, element 62A, Fig. 3B, element 62B. In addition, LASH teaches output means (i.e. printer or video output) on page 3, paragraph 0034. It would have been obvious to one having ordinary skill in the art at the time of the invention to output (i.e. display) the readily available information, that is, intervention flag, medical episode, patient identification using the readily available output (i.e. printer, display) with the motivation of presenting or generating record for viewing or future references. LASH, page 3, paragraphs 0034-0035.

The remaining features of claim 1 are rejected for the same reasons given in the previous Office Action dated 11/02/2004, and incorporated herein.

(B) As per claim 16, has been amended to now recite "a record associated with each of the plurality of members being electronically stored,"; "the electronically stored records associated with each of"; "wherein the filter criterion compares the members' predicted future healthcare utilization,"; "calculating a relative risk for each of the high cost members"; "wherein the set of high cost members includes members with distinct intervention flags"; "selecting an intervention set from the high-cost members based on the relative risk for each of the high-cost members," "showing to a user the intervention flag for each intervention set member in association with an identification", and "generating a display showing to the user detailed information regarding the intervention flag for one of the intervention set members, responsive to electronic selection of the intervention flag by the user".

LASH teaches the database 10 for electronically stored claims of the members in Fig. 1, page 2, paragraph 0023; the predictive model and filter criterion on page 4, paragraph 0037, lines 20-34. The predictive and filtering concepts disclosed by LASH serve to predict high cost members (i.e. future costs) including a comparison of the scores, that is a direct function of future costs as specified by the model. See LASH, page 4, lines 1-6 of paragraph 0041.

LASH teaches the calculation of a relative score (reads on relative risk) for each of the high cost patients. LASH, page 6, Table 2, paragraph 0054; and set of high cost members with distinct intervention flags. LASH, page 6, Table 1, paragraph 0052 and Fig 1.

LASH teaches the "selecting an intervention set from the high-cost members based on the relative risk for each of the high-cost members;" , " showing to a user the intervention flag for each intervention set member in association with an identification on page 4, paragraph 0037, lines 23-34, paragraph 0041, lines 1-6, page 6, Table 2.

Regarding the step for generating a display showing to the user detailed information regarding the intervention flag for one of the intervention set members, responsive to electronic selection of the intervention flag by the user , LASH teaches in Fig. 1 the display of the variables (intervention flags) A-Z, the variables are associated with medical episode (i.e., 4 emergency visits) and identifications of patients (1-n). See Fig. 1, paragraph 0010, lines 8-19. LASH also teaches on page 6, Table 2 a display showing variable (i.e., intervention flag), medical episode (i.e., 2 office visits for respiratory related problems), identification (i.e., 55 years old). It is readily apparent that

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the data of Table 2 is displayed in response to an electronic selection of the particular 55 years old patient. LASH's apparatus is computerized, as such the "electronically" is readily apparent. See also LASH, Fig 3, element 62, Fig. 3A, element 62A, Fig. 3B, element 62B.

In addition, LASH teaches output means (i.e. printer or video output) on page 3, paragraph 0034. It would have been obvious to one having ordinary skill in the art at the time of the invention to output (i.e. display) the readily available information, that is, intervention flag, medical episode, patient identification using the readily available output (i.e. printer, display) with the motivation of presenting or generating record for viewing or future references. LASH, page 3, paragraphs 0034-0035.

The remaining features of claim 16 are rejected for the same reasons given in the previous Office Action mailed 11/02/2004, and incorporated herein.

(C) Amended claim 21 repeats the added limitations recited in claim 16, and is rejected for substantially the same reasons given above in the rejection of amended claim 16. In addition, "the plurality of claims for high cost members" recited in amended claim 21 is disclosed by LASH, on page 1, paragraph 0007, lines 10-16.

The remaining features of claim 21 are rejected for the same reasons given in the previous Office Action mailed 11/02/2004, and incorporated herein.

(D) Amended claim 27 repeats the added limitations recited in claim 16, and is rejected for substantially the same reasons given above in the rejection of amended claim 16. In addition, "the plurality of claims for each of the high cost members" recited in amended claim 27 is disclosed by LASH, on page 1, paragraph 0007, lines 10-16.

Regarding the step for "selecting one of the intervention set members and displaying to a user a portion of the data file corresponding to the selected intervention set member, such that the display portion of the data files includes the plurality of intervention flags of the selected intervention set member.". LASH teaches in Fig. 1 the display of the intervention set member, including a plurality of intervention flags for the selected member(s). LASH also teaches on page 6, Table 2 a display showing a selected member with corresponding information including variable (i.e., intervention flag), medical episode (i.e., 2 office visits for respiratory related problems), identification (i.e., 55 years old). It is unclear if LASH displays the data in Fig.1 and TABLE 2 on a computer or video display. LASH, however, teaches output means (i.e. printer or video output) on page 3, paragraph 0034. It would have been obvious to one having ordinary skill in the art at the time of the invention to output (i.e. display) the readily available information, that is, intervention flag, medical episode, patient identification using the readily available output (i.e. printer, display) with the motivation of presenting or generating record for viewing or future references. LASH, page 3, paragraphs 0034-0035.

The remaining features of claim 27 are rejected for the same reasons given in the previous Office Action mailed 11/02/2004, and incorporated herein.

(E) As per claims 2 and new claim 31, claim 2 has been amended to recite "to the user detailed information", "responsive to electronic selection of the intervention flag or the medical episode by the user". LASH teaches on page 6, Table 2 a display showing detailed information regarding the variable (i.e., intervention flag) such as medical

episode (i.e., 2 office visits for respiratory related problems), identification (i.e., 55 years old). It is readily apparent that the data of Table 2 is displayed in response to an electronic selection of the particular 55 years old patient. LASH's apparatus is computerized, as such the "electronically" is readily apparent. See also LASH, Fig 3, element 62, Fig. 3A, element 62A, Fig. 3B, element 62B. In addition, LASH teaches output means (i.e. printer or video output) on page 3, paragraph 0034. It would have been obvious to one having ordinary skill in the art at the time of the invention to output (i.e. display) the readily available information, that is, intervention flag, medical episode or patient identification using the readily available output (i.e. printer, display) with the motivation of presenting or generating a record for viewing or future references. LASH, page 3, paragraphs 0034-0035.

(F) As per claim 8, the claim has been amended to delete "calculating a relative risk for the member" and to add "to the user". LASH teaches the display to a user a relative score 36 (reads on relative risk) in association with the 55 year old patient (reads on identification of the member) in Table 2. See LASH, page 6, Table 2 and paragraphs 0053-0054.

(G) As per claim 17, 22, the claims have been amended to recite "compares", and "compares a predicted future cost for each of the plurality of members", respectively. The claims are rejected for substantially the same reasons given in the previous Office Action, dated 11/02/2004, and incorporated herein. In addition, LASH teaches the predictive model and filter criterion on page 4, paragraph 0037, lines 20-34. The predictive and filtering concepts disclosed by LASH serve to predict high cost members

(i.e. future costs), the process includes a comparison of the scores, that is a direct function of future costs as specified by the model. See LASH, page 4, lines 1-6 of paragraph 0041.

(H) As per claim 19, the claim has been amended to recite "for each high cost member". The claim is rejected for substantially the same reasons given in the previous Office Action, dated 11/02/2004, and incorporated herein. In addition, LASH teaches the variables (i.e. intervention flags) for detecting high cost members on page 1, paragraph 0007, line 4, lines 14-16.

(I) As per claims 28,29, the claims have been amended to recite "and wherein the data file is for display showing the number of intervention flags for each of the intervention set members" and "wherein filtering using the filter criterion identifies the high cost members and further identifies a relative risk for each of the plurality of members of the healthcare plan", respectively. The claims are rejected for substantially the same reasons given in the previous Office Action, dated 11/02/2004, and incorporated herein. In addition, LASH particularly teaches the display of showing the number of intervention flags of the each of intervention set members, the filtering to identify high cost members, and the identified relative score(s) (reads on relative risks) for each of the patient(s) in Fig. 1, page 1, paragraph 0007, lines 1-4, page 3, paragraph 0025, lines 1-6, page 4, paragraph 0037, lines 28-34, page 6, paragraph 0054.

(J) Claims 3-7,10,11,13,18,20,24-26,30 have not been amended and are rejected for the same reasons set forth in the previous Office Action dated 11/02/2004, and incorporated herein.

(K) The amendments to claims 9, 23 were made to change the dependency of the claims, and do not effect the scope of the claims as previously presented and/or the manner in which the claims were interpreted by the Examiner when applying art within the previous Office Action dated 11/02/2004. As such, these claims are rejected for the same rationale given in the previous Office Action dated 11/02/2004, and incorporated herein.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over LASH as applied to claim 1 above, and further in view of Lutgen et al (US 2003/0167189 A1).

(A) Claim 12 has not been amended and is rejected for the same reasons set forth in the previous Office Action mailed 11/02/2004, and incorporated herein.

6. Claims 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over LASH as applied to claim 1 above, and further in view of Lockwood et al (5845254).

(A) Claims 14, 15 have not been amended and are rejected for the same reasons set forth in the previous Office Action dated 11/02/200, and incorporated herein.

Response to Arguments

7. Applicants' arguments filed 02/25/2005 have been fully considered but they are not persuasive. Applicants' arguments will be addressed herein below.

(A) On page 8 of the Remarks, Applicants request the requirement of new oath or declaration be held in abeyance until the inventors can be contacted. The Examiner acknowledges the request.

(B) On pages 8-10 of the Remarks, Applicants argue the rejections under 35 USC102. The rejections of claims 1,2,6,8,10,11,13,16,20,21,24,and 25 under 35 USC

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102 have been withdrawn in response to the amendment filed 02/25/2005. Applicants' arguments with respect to the previous rejections under 35 USC 102 have been considered but are moot in view of the new ground(s) of rejections. The limitations argued by the Applicants are disclosed or suggested in LASH as discussed in the above new ground of rejections of the claims. Regarding the Applicants' argument that LASH teaches "filtering based on disease and condition, not high cost members based on predicted future health care utilization" and LASH teaches subsequently identifying high use from a homogenized set of patients, not from the entire set". In response, the claims do not recite "the entire set" and further more, LASH clearly teaches the identifying of high cost patients associated with particular type(s) of disease(s) and condition(s) from diverse population(s) of patients. See the above rejections of the claims. In addition, "asthmatic or diabetic patients" population can be considered an entire set of patients diagnosed with the particular type of disease. Furthermore, it is within the level of a ordinary skill in the art to apply the concept of filtering/identifying high cost patients to all populations or a particular patient population.

(C) On pages 10-11 of the Remarks, Applicants argue the rejections under 35USC 103. In particular, Applicants argue that claim 27 recite " filtering...to identify a set of high cost members" based on predicted future healthcare utilization" and "selecting an intervention set from high cost members" where "the set of high cost members includes members with distinct sets of intervention sets". LASH teaches these limitations as discussed in the above rejection.

Applicants further argue the reference teaches away because it operates in different manner. Examiner disagrees. The reference fairly teaches the Applicants' invention, that is the concepts of storing the claims of the patients in a database, of searching the stored claims for variables or flags, of selecting patients, of calculating scores (risks), identifying high risk/ cost, and of displaying detailed information, and therefore is not teaching away. In addition, it is submitted that the issue of obviousness is not determined by what the reference(s) expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lahu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

- (i) obviousness does not require absolute predictability;
- (ii) non-preferred embodiments of prior art must also be considered; and
- (iii) the question is not express teaching of references, but what they would suggest.

(D) On page 11 of the Remarks, Applicants argues that LASH does not display a plurality of intervention flags of a single member and the patients in LASH are expressly group by a single intervention flag- e.g., asthma or diabetes. Examiner disagrees, "asthma or diabetes" disclosed in LASH is not "the single intervention flag" quoted by the Applicants, "asthma or diabetes" disclosed in LASH represents the various type(s) of patients. See LASH, page 1, paragraph 0010.

With respect to the display of intervention flags of a single member. LASH clearly teach the display in TABLE 2 of page 6, the detailed information of a single

patient, 55 years old patients with the detailed information including the variables that read on the intervention flags.

(E) In the last paragraph of page 11 of the Remarks, Applicants argue the rejections of claims 14, 15 under 35 USC 103 as being unpatentable over LASH in view of Lockwood et al. and of claim 12 over LASH in view of Lutgen et al. Applicants do not present argument(s) with respect to Lockwood et al. and Lutgen et al. As such, claims 12, 14, 15 are rejected for substantially the same reasons given above in the new ground of rejection applied to the dependent claim 1 in view of the rejections of claims 12, 14, 15 set forth in the previous Office Action, dated 11/02/2004, and incorporated herein.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. "Component based database infrastructure and user interface" (US 6363393), "Computerized medical advices system" (US 2001/0029322 A1), "Method for improving patient compliance" (US 6587829 B1).

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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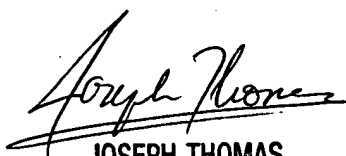
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim T. Bui whose telephone number is 571-272-6768. The examiner can normally be reached on Monday-Friday from 8:30A.M. to 5:00P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on 571-272-6776. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KTB
5/5/05


JOSEPH THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600